

INFORMATION DISCLOSURE
CITATION

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SERIAL NO.

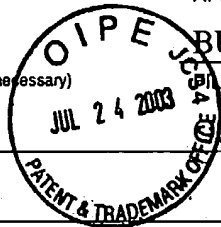
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10/065,495

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BUNKER

FILING DATE

October 24, 2002

GROUP

3746

JUL 25 2003

TECHNOLOGY CENTER R3700

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
W.R.	1,848,375	3/1932	Muir			
	2,801,073	7/1957	Savage			
	2,938,333	5/1960	Wetzler			
	3,229,763	1/1966	Rosenblad			
	3,572,031	3/1971	Szetela			
	3,664,928	5/1972	Roberts			
	3,899,882	8/1975	Parker			
	4,158,949	6/1979	Reider			
	4,184,326	1/1980	Pane, Jr. et al.			
	4,838,031	6/1989	Cramer			
	5,024,058	6/1991	Shekleton et al.			
W.R.	5,353,865	10/1994	Adiatori et al.			

FOREIGN PATENT DOCUMENTS

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
W.R.	JP 2001-164901	6/2001	Japan		x
	61-280390	12/1986	Japan		
	9-217994	8/1997	Japan		
W.R.	JP-408110012-A	4/1996	Japan		

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

W.R.	"Corporate Research and Development Technical Report Abstract Page and Sections 1-2," Bunker et al., October 2001.
	"Corporate Research and Development Technical Report Section 3," Bunker et al., October 2001.
	"Thermohydraulics of Flow Over Isolated Depressions (Pits, Grooves) in a Smooth Wall," Afanas'yev et al., Heat Transfer Research, Vol. 25, No. 1, 1993.
	"Mass/Heat Transfer in Rotating Dimpled Turbine-Blade Coolant Passages," Charya et al., Louisiana St. University, 2000.
	"Effect of Surface Curvature on Heat Transfer and Hydrodynamics within a Single Hemispherical Dimple," Proceedings of ASME TURBOEXPO 2000, May 8-11, 2000, Munich Germany.
	"Concavity Enhanced Heat Transfer in an Internal Cooling Passage," Chyu et al., presented at the International Gas Turbine & Aeroengine Congress & Exhibition, Orlando, Florida, June 2-5, 1997.
	"Heat Transfer Augmentation Using Surfaces Formed by a System of Spherical Cavities," Belen'kiy et al., Heat Transfer Research, Vol. 25, No. 2, 1993.
	"Experimental Study of the Thermal and Hydraulic Characteristics of Heat-Transfer Surfaces Formed by Spherical Cavities," Institute of High Temperatures, Academy of Sciences of the USSR. Original article submitted November 28, 1990.
	"Turbulent Flow Friction and Heat Transfer Characteristics for Spherical Cavities on a Flat Plate," Afanasyev et al., Experimental Thermal and Fluid Science, 1993.
	"Convective Heat Transfer in Turbulized Flow Past a Hemispherical Cavity," Heat Transfer Research, Vol. 25, Nos. 2, 1993.

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

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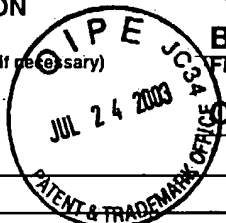
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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>Lee</i>	5,361,828	11/1994	Lee et al.			
	5,363,654	11/1994	Lee			
	5,419,039	5/1995	Auxier et al.			
	5,421,158	6/1995	Stenger et al.			
	5,460,002	10/1995	Correa			
	5,651,662	7/1997	Lee et al.			
	5,660,525	8/1997	Lee et al.			
	5,681,144	10/1997	Spring et al.			
	5,695,321	12/1997	Kercher			
	5,724,816	3/1998	Ritter et al.			
	5,738,493	4/1998	Lee et al.			
	5,758,503	6/1998	Dubell et al.			
	5,797,726	8/1998	Lee			
	5,822,853	10/1998	Ritter et al.			
	5,933,699	8/1999	Ritter et al.			
	5,975,850	11/1999	Abuaf et al.			
	6,098,397	8/2000	Glezer et al.			
	6,134,877	10/2000	Alkabic			
	6,190,120	2/2001	Thatcher et al.			
	6,237,344	5/2001	Lee			
	6,314,716	11/2001	Abreu et al.			
	Pub # 2001/005241 A1	12/2001	Pantow et al.			
	6,334,310	1/2002	Sutcu et al.			
	6,402,464	6/2002	Chiu et al.			
	6,408,629	6/2002	Harris et al.			
	6,412,268	7/2002	Cromer et al.			
	6,468,669	10/2002	Hasz et al.			
	6,494,044	12/2002	Bland			
	6,504,274	1/2003	Bunker et al.			
<i>Johnson</i>	6,526,756	3/2003	Johnson et al.			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

<i>Lee</i>	Patent Application Serial No. 10/010,549, filed November 8, 2001.
	Patent Application Serial No. 10/063,467, filed April 25, 2002.
	Patent Application Serial No. 10/162,755, filed June 6, 2002.
	Patent Application Serial No. 10/162,766, filed June 6, 2002.
	Patent Application Serial No. 10/064,605, filed July 30, 2002.
	Patent Application Serial No. 10/065,108, filed September 18, 2002.
	Patent Application Serial No. 10/065,115, filed September 18, 2002.
	Patent Application Serial No. 10/065,814, filed November 22, 2002.
<i>U</i>	Patent Application Serial No. 10/301,672, filed November 22, 2002.

*Examiner	<i>W.R.</i>	Date Considered	<i>2/24/04</i>
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